

# ARMY GROUND-ACCIDENT REPORT COUNTERMEASURE

Volume 18 Number 2

February 1997

**C**ommanders whose units experience aircraft and ground-vehicle accidents are increasingly confronted not only with the accident and the resultant loss of valuable resources but also with exposure of personnel to accident-site hazards such as advanced composite materials, or ACMs. Even though the immediate symptoms of exposure to ACM hazards (headache, burning eyes, and vomiting) may not be evident, the potential still exists for long-term health problems. Therefore, it is crucial that personnel who must work near an accident site be informed of the hazards so that they can take appropriate precautions to lessen their risk of exposure.

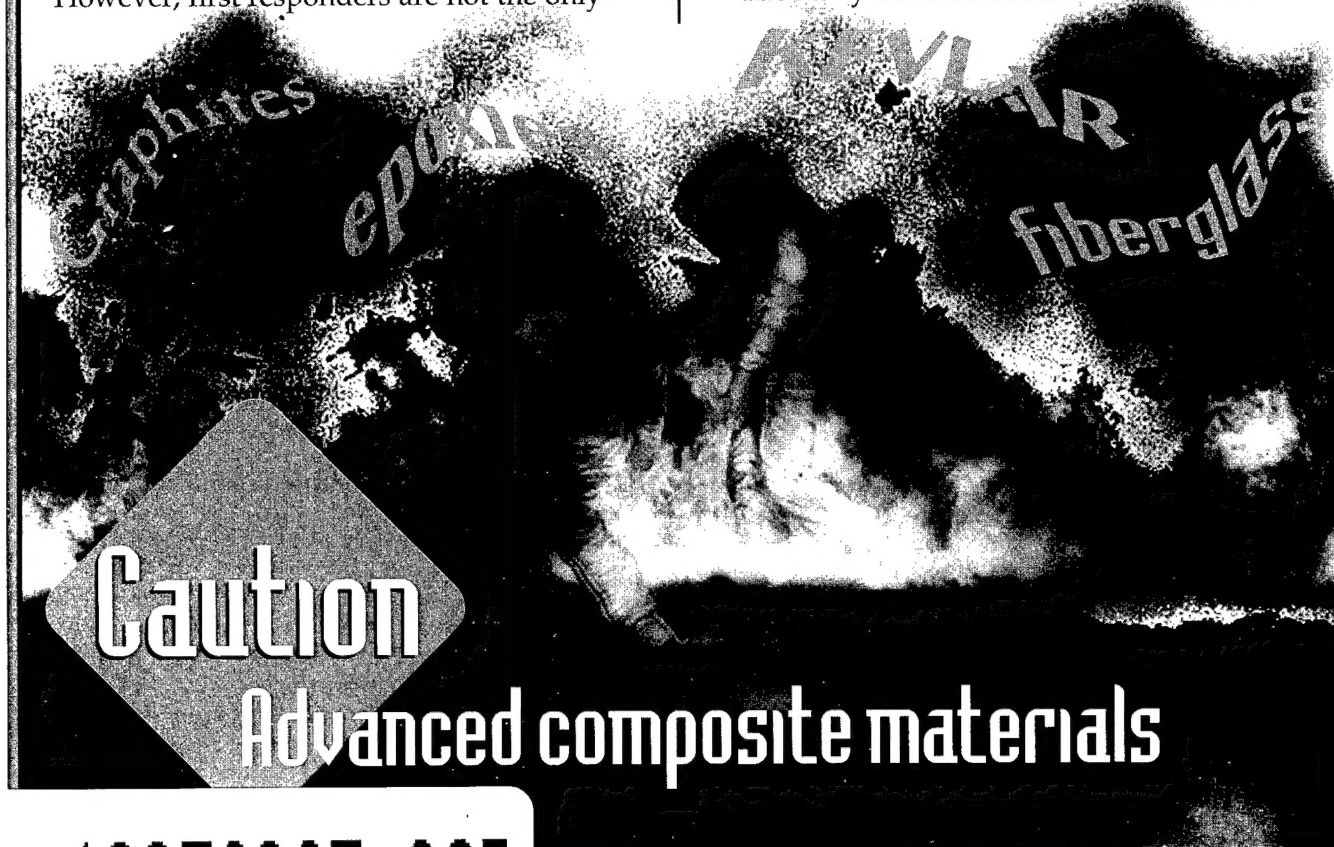
Personnel responding to aircraft and ground-vehicle accidents are most at risk because of their immediate exposure to ACMs and other accident-site hazards such as bloodborne pathogens (see sidebar on page 3). However, first responders are not the only

ones at risk. Individuals involved in the subsequent investigation, recovery, and cleanup operations also may be exposed to these accident-site hazards.

## Potential health hazards

Advanced composite materials—such as graphites, Kevlar, epoxies, and fiberglass—are widely used in modern Army equipment including personal protective equipment, armored vehicles, and aircraft. As more information is obtained about the properties of these materials, concern has heightened about the potential health risk to personnel exposed to ACMs that have been severely fragmented or burned in aircraft or vehicle accidents. When an accident occurs, particularly when a fire has ensued, fragmented composites and gases including nitric oxides, sulfur dioxides, hydrogen cyanide, as well as burned fragmented carbon fibers, are generated.

The Navy Environmental Health Center has



19970307 065

DISTRIBUTION STATEMENT A

Approved for public release;  
Distribution Unlimited

DTIC QUALITY INSPECTED 4

collected extensive data concerning composites and, in particular, composites in fires (NEHC-TM 91-6, Sep 91). Their main concern is the possibility that the fibers, liberated as the resins burn off, will splinter into a small enough size to be inhaled and retained in the lungs. Fibers also may lacerate or irritate the cornea of the eyes, or they may penetrate the skin in the same manner as a splinter.

In addition, experimental studies done to assess and define composite combustion products revealed that burning graphite or epoxy composites produce carbon monoxide and, to a much lesser extent, hydrogen cyanide. Also found as combustion products were ethane, propane, isopropyl alcohol, benzene, and trace amounts of propylene. Although the gaseous hazards are more prevalent while the fire is active, residual gases may be trapped and subsequently released when the wreckage is moved.

The effects from these hazards may include respiratory function irritation or inflammation (difficulty in breathing may occur) as well as skin irritations (contact dermatitis) and rashes. Cancer could be a delayed effect especially with prolonged and repeated skin contact or inhalation exposure without protection. At this time, there is not enough information to determine all of the short- and long-term health problems that exposure to ACMs may cause. However, sufficient evidence does exist to suggest the presence and toxicity of many of the materials generated in postaccident composite fires. Without question, an accident site involving composites is a potentially hazardous area. Therefore, commanders must develop pre-accident plans that identify the risks to personnel and specify control measures that will minimize exposure to ACMs.

### **Pre-accident plans**

Installation and unit pre-accident plans must address accident-site hazards as required by DA Pam 385-40: *Army Accident Investigation and Reporting*, paragraph 2-2(2). Commanders, unit safety officers, and personnel at all levels must be actively involved in pre-accident planning. To minimize unnecessary exposure to ACMs and other accident-site hazards, unit and installation emergency response teams must be properly trained, equipped, and disciplined to use the appropriate personal protective measures when responding to any accident but especially when the accident involves composite fires.

The best way to minimize unnecessary exposure to accident-site hazards is through a solid pre-accident plan that outlines work practices required to ensure proper handling of the hazards and specifies the protective equipment necessary to minimize the risks.

■ **Work practices.** In mishaps where fire or an

explosion occurs, the following controls must be observed:

- Limit accident-site access to essential personnel. While the wreckage is burning or smoking, allow only firefighters and rescue personnel equipped with a self-contained breathing apparatus (SCBA) into the immediate area.

- Work upwind from the fire whenever possible. Restrict all unprotected personnel from assembling downwind of the wreckage (fires), and restrict entry into the immediate area where burned fibers may be stirred.

- Restrict all personnel except those administering immediate life-saving efforts from entry until munitions have been cleared by the proper disposal teams if live ordnance or munitions are involved.

- Prohibit eating, drinking, or smoking in or around the crash site.

- Spray the debris with a fixative, such as polyacrylic acid (for example, Carboset XL-11 manufactured by B.F. Goodrich) as soon as the fire is extinguished and the wreckage has cooled, to contain the burned-fiber materials. A light oil, acrylic floor wax, or an equivalent tack substance are acceptable substitutes and easily applied. Treat components and wrap them with heavy-gauge plastic wrap if they are required for further analysis. This keeps the fibers from becoming airborne during the recovery and transport phases and prevents personnel who handle the components from being injured.

- Cordon off the area and restrict entry to a single entrance and exit point.

- Keep guards and other personnel on the periphery of the accident upwind at a safe distance when fire or smoke is present. Entry into any downwind area must be restricted. If personnel must be downwind, ensure that they wear protective clothing and equipment.

- Exercise caution while handling debris. Skin punctures from reinforcing fiber splinters are possible.

- Shower as soon as possible after leaving the accident site.

- Handle residue from burned composite materials as nonhazardous waste according to local environmental policies.

### **■ Protective clothing and equipment.**

- **For accidents not involving fire.** Leather gloves with inserts offer adequate protection from splinter injuries. A respirator and safety eye protection with side shields will provide adequate protection from airborne fibers. All three should be worn when moving or handling composite fiber components.

- **For accidents involving fire.** Units should consider procuring the following appropriate protection devices to be used in rescue operations:

- ◆ A self-contained breathing apparatus

as determined by firefighting protocol is essential while the vehicle or aircraft is burning or smoldering. All personnel without a SCBA should be restricted from the immediate area with the exception of those providing immediate, life-saving efforts.

◆ A full-face respirator with high-efficiency particulate air (HEPA) organic vapor filter should be worn by personnel present during the early stages of the investigation before a fixant has been applied or when composite fiber components are being cut, broken, or ripped apart. In the absence of full-face respirators, a respirator with filters and eye goggles is required as a minimum.

◆ Tyvek® or comparable coveralls that have been taped at the openings should be worn by investigation and cleanup crews or anyone working within 25 feet of any burned composite vehicle (M113, Bradley, M1, UH-60, CH-47D, AH-64, OH-58D) unless or until a fixant has been applied. These coveralls are single-use and should be disposed of as normal waste after use.

#### NSNs for Tyvek® disposable coveralls

Small	8415-01-092-7529
Medium	8415-01-092-7530
Large	8415-01-092-7531
Extra large	8415-01-092-7532
Extra, extra large	8415-01-092-7533

◆ Puncture-resistant leather gloves with inserts are necessary when handling debris. Standard-issue black leather gloves are acceptable.

◆ Safety glasses or goggles with side shields will provide eye protection if a full-face respirator is not used.

◆ A respirator is still warranted even after a fixant has been applied to the debris and vapor or mist generation is no longer a concern.

#### Points of contact

When developing your unit's pre-accident plan, you can obtain specific guidance from the—

- Local flight surgeon or occupational medicine officer (ground accidents).
- Installation industrial hygienist.
- Local hazardous materials emergency response team.
- Installation safety and occupational health manager.
- U.S. Army Safety Center, Operations Office, DSN 558-2660 (334-255-2660).
- U.S. Army Center for Health Promotion and Preventive Medicine, DSN 584-3118 (410-671-3118).

Commanders and safety officers must manage the risks associated with accident-site hazards. A pre-accident plan that identifies and assesses ACM hazards and specifies control measures will provide commanders with an effective risk-management tool to protect the health of those who must work in and around crash sites. ◆

—MAJ Paul Nagy, USASC, DSN 558-3262 (334-255-3262), developed this article from USASC safety alert message (201506Z May 96) and an April 1992 *FlightFax* article written by LTC Kenneth Tannen.

## Another accident-site hazard

**B**iological hazards involving bloodborne pathogens may be present during rescue operations.

While initial responders and emergency rescue personnel are most at risk for these hazards, subsequent investigation, recovery, and cleanup personnel must consider the possibility of exposure to body fluids and bloodborne pathogens. For example, an accident investigation team member could sustain a cut from a piece of contaminated debris while handling biological materials.

■ Units should identify work practices and controls in their pre-accident plans to protect personnel from exposure to bloodborne pathogens at accident sites. This should

include requirements for mandatory briefings of personnel who will be operating in and around an accident site.

■ Personal protective equipment should include—

- Latex gloves or double-latex gloves.
- Utility work gloves.
- Disinfectant wipes.
- Red biohazard bag.
- 10-percent household chlorine bleach solution.
- Boot covers.
- Protective coveralls.
- Goggles.
- Surgical masks. ◆

# Helping soldiers recognize UXO

**D**uring Operation Desert Storm, 26 U.S. soldiers died when unexploded ordnance or "duds," including mines, blew up. Estimates of the problem in Bosnia indicate that 4 to 6 million antitank and antipersonnel mines have been randomly laid in mountain roads, fields, forests, and villages. To add to the problem, many of these devices don't even look like a piece of ordnance.

That is why SGM Gary Sampson of the Explosive Ordnance Disposal Training Department at the U.S. Army Missile Command (MICOM) decided

there must be a better way to teach soldiers how to recognize these devices. There was, and he found it. He presented his idea to the Corporate Information Center's Exhibits Branch at MICOM, and Kenneth Kilpatrick, an exhibits specialist, created a series of board-mounted plastic models that illustrate grenades, rockets, projectiles, submunitions, mortars, and a variety of mines. The models are the same size, shape, and color as their lethal counterparts and can be placed on boards for exhibit in positions they would likely be found on the ground. Costing about \$150 per set, the models



Realistic models like these in the Mine Recognition Board and Ammunition Recognition Board sets will help soldiers recognize their lethal counterparts.



are lightweight—each set weighs about 10 pounds—and easily shipped.

The first boards were shipped to units in Bosnia. Additional boards are available to units throughout the world. The seven-board Ammunition Recognition Board set (DVC-T 05-50) and the four-board Mine Recognition Board set (DVC-T 05-51) can be

requested through your unit's Training Support Center (TSC). ♦

**POCs: Ms. Juanita Davis, Training Aids Manager, U.S. Army Training Support Center (ATSC), Fort Eustis, VA, DSN 927-4771/4772 (804-878-4771/4772) and Mr. Randy Porter, Ammunition and Mine Recognition Board Producer, USAMICOM-CIC, Redstone Arsenal, AL, DSN 645-6078 (205-955-6078)**

## Live demolition training fatality

**L**ast summer, a soldier died when shrapnel struck him in the chest during live demolition training. Since April 1992, three soldiers have been killed and one suffered a serious disabling injury during this kind of activity. In this case, the soldier was not within the minimum safe distance (MSD). He also was not wearing a flak vest, and upon detonation, he stood up to observe the smoke plume.

The OIC was not qualified to run the demolition range, and the range safety officer (RSO) was being multi-tasked as the RSO, platoon sergeant, and the primary trainer. AR 385-63: *Policies and Procedures for Firing Ammunition for Training, Target Practice, and Combat* outlines the duties and responsibilities of the OIC and RSO.

These soldiers were doing round-robin type training using three sites: bangalore torpedo, shaped charges, and steelcutting charges. All three sites were tied into the same ring main. All of the charges were to standard with the exception of the steelcutting charge. AR 385-63 states that steelcutting charges placed on steel will not exceed 2 pounds. In this case, the soldiers had far exceeded the necessary amount in a last-minute effort to dispose of excess demo. FM 5-250: *Explosives and Demolitions* also advises using the minimum amount of explosives necessary to accomplish the mission.

There also was no appropriate

confining structure such as an excavated pit or hemp-type material covering the charge.

To make a hazardous situation worse, the soldiers had lost track of the total amount of explosives being detonated—so when they computed the MSD, it was far shorter than it should have been. The RSO chose a defilade position which, unfortunately, was not within the MSD.

The missile-hazard effect was not taken into consideration. The missile hazard from steelcutting charges extends for a greater distance than for other type charges. AR 385-63 provides the criteria for missile-hazard distances. FM 5-250 also gives the safe distance for personnel with charges on target, taking the missile effect into consideration. The FM also says to maintain accurate accountability of all explosives and accessories.

There was no missile-proof shelter available, so the soldiers went into a defilade position. But some of them were not in the prone position directly behind the berm; some were even standing. Flak vests were not available. If flak vests had been available and worn, the severity of this accident could have been greatly reduced.

AR 385-63 and FM 5-250 provide guidelines for this kind of operation. If leaders had followed these guidelines, this accident could easily have been avoided. ♦

**POC: SFC Charles Olsen, Engineer NCO, DSN 558-3034 (334-255-3034)**

# Safety messages

## **Armament and Chemical Acquisition and Logistics Activity (ACALA)**

■ AMSTA-AC-CTTE, 071419Z Jan 97, subject: Ground Precautionary Message (GPM) 97-04, technical, saw band metal cutting (NSN 3405-00-294-9591, LIN S34850), manufacturer Doall, model DBW-15 welder, machine serial number 500-93313, welder serial number 290-8714815. POC: Mr. Lonnie Griffin, DSN 793-1947 (309-782-1947).

## **Aviation and Troop Command (ATCOM)**

■ AMSAT-R-X, 052007Z Dec 96, subject: Safety-of-Use Message (SOU) ATCOM-97-001, deadline, termination of use of the improved reserve parachute system (IRPS) (T-101R) (NSN 1670-01-420-4256). POC: Mr. Gayle Sappington, DSN 693-3997 (314-263-3997).

■ AMSAT-R-X, 012112Z Oct 96, subject: GPM-ATCOM-97-001, technical, convenience receptacle overload protective parts, MEP-802 (NSN 6115-01-274-7387, LIN G11966), MEP-812 (NSN 6115-01-274-7391, LIN G12102), MEP-803 (NSN 6115-01-275-5061, LIN G74711), MEP-813 (NSN 6115-01-274-7392, LIN G74779), MEP-804 (NSN 6115-01-274-7388, LIN G12170), MEP-9814 (NSN 6115-01-274-7393, LIN G12238), MEP-805 (NSN 6115-01-385-7389, LIN G74575), MEP-815 (NSN 6115-01-274-7394, LIN G74643), MEP-806 (NSN 6115-01-274-7390, LIN G12034), MEP-816 (NSN 6115-01-274-7395, LIN G18052), PU-797 (NSN 6115-01-332-0741, LIN G42238), PU-797A (NSN 6115-01-413-3820), LIN G42238), AN/MJQ-35 (NSN 6115-01-313-4216, LIN P28083), AN/MJQ-35A (NSN 6115-01-414-9697, LIN P28083) AN-MJQ-36 (NSN 6115-01-313-4215, LIN P28151), PU-798 (NSN 6115-01-319-9032, LIN G42170), PU-798A (NSN 6115-01-413-3818, LIN G42170), PU-799 (NSN 6115-01-313-4283, LIN G53403), PU-799A (NSN 6115-01-413-3819, LIN G53403) AN/MJQ-37 (NSN 6115-01-299-6035,

LIN P42262), AN/MJQ-38 (NSN 6115-01-313-4214, LIN P42330), PU-800 (NSN 6115-01-317-2137, LIN G78203), PU-801 (NSN 6115-01-319-9033, LIN G78374), PU-801A (NSN 6115-01-413-3821, LIN G78374), PU-802 (NSN 6115-01-317-2138, LIN G53778), AN/MJQ-39 (NSN 6115-01-299-6034, LIN P42614), PU-803 (NSN 6115-01-317-2136, LIN G35851), PU-804 (NSN 6115-01-317-2135, LIN G35919), AN/MJQ-40 (NSN 6115-01-129-6033, LIN P42126), PU-805 (NSN 6115-01-317-2134, LIN G78306), PU-806 (NSN 6115-01-317-2133, LIN G17460), AN/MJQ-41 (NSN 6115-01-303-7896, LIN P42194). POC: Mr. Jim Wilkins, 693-2258 (314-263-2258).

■ AMSAT-R-X, 051926Z Dec 96, subject: GPM-ATCOM-97-002, one-time inspection, riser extension, personnel troop parachute (NSN 1670-00-708-4473) used on parachute, personnel-type, T-10C, (NSN 1670-01-248-9502, LIN N67925) and parachute, personnel-type, T-10B (NSN 1670-00-591-0720, LIN N67925). POC: Mr. Gayle Sappington, DSN 693-3997 (314-263-3997).

■ AMSAT-R-X, 021429Z Jan 97, subject: GPM-ATCOM-97-003, repair kit, collapsible fabric tank (NSN 5430-01-359-1078) used on all Army collapsible fabric water tanks and drums, including the 3,000-gallon collapsible fabric water tank (NSN 5430-01-359-4774, LIN T19033). POC: Mr. Randy Wethington, DSN 693-3931 (314-263-3931).

## **Industrial Operations Command (IOC)**

■ AMSIO-QAS, 192034Z Dec 96, subject: SOUM-IOC-2-97, operational, 1340-H164, 2.75-inch rocket, M151, HERS, with M433 fuze hydra and M66 motor, precautionary measures when firing rockets airborne. POC: Ms. Mary Crosson, DSN 793-4106 (309-782-4106).

■ AMSIO-QAS, 192045Z Dec 96, subject: SOUM-IOC-3-97, operational, MK66 motor, 2.75-inch rockets, all mods. POC: Ms. Mary Crosson, DSN 793-4106 (309-782-4106).

## Tank and Automotive Command (TACOM)

■ AMSTA-IM-O, 072115Z Jan 97, subject: SOUM-TACOM-WRN Control No. 97-03, operational, for M1 Abrams tank (NSN 2350-01-061-2445, LIN T13374), M1A1 Abrams tank (NSN 2350-01-087-1095), IPM1 Abrams tank (NSN 2350-01-136-8730), and M1A2 tank (NSN

2350-01-328-5964). POC: Mr. Tim Milanov, DSN 786-7895 (810-574-7895).

## Missile Command (MICOM)

■ AMSMI-MMC-LS-SM, 201000Z Dec 96, subject: SOUM-MICOM-96-07, compressed gas (nitrogen) cylinders (NSN 8120-01-075-5963). POC: Mr. Willie Armstrong, DSN 746-9508 (205-876-9508). ♦

# Battery explosion injures soldier

**W**hile conducting a PMCS of a 5-ton truck, a soldier was sitting in the driver's seat observing the operation of the gauges. His arm and hand were resting on the passenger seat when the battery box exploded. The latches that connect the passenger seat to the battery box failed, and his arm was slammed into the structure of the truck. He suffered a shattered arm and required immediate surgery. The soldier also lost 15 workdays due to the seriousness of the injury.

The explosion was caused by arcing of the battery cables. While the soldier's arm was resting on the passenger seat, pressure was applied to the battery cables, causing connection with the top of the seat and the interconnecting battery cable.

Leaders should monitor maintenance of all batteries to ensure that soldiers are conducting a proper PMCS in accordance with the technical manuals. All

battery-operated equipment should be inspected to ensure that nothing interferes with the battery cables. Battery safety awareness and battery maintenance classes should be scheduled to educate soldiers on proper procedures and prevent further injuries of this type.

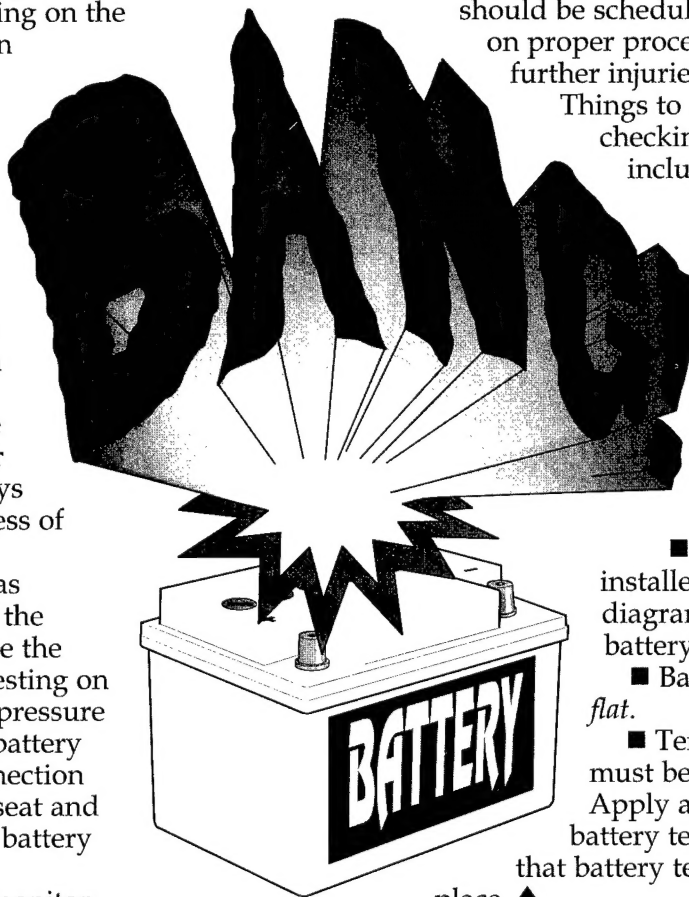
Things to keep in mind when checking batteries and cables include—

- Continued reliability of electrical systems requires performance of routine maintenance to assure a good electrical connection and safe cable positioning.

- Battery cables must be installed as shown on diagrams for each specific battery.

- Battery cables must lie flat.

- Terminals and connectors must be kept clean and tight. Apply a light coat of grease to battery terminals and ensure that battery terminal covers are in place. ♦



POC: SSG Bridgette M. Mills, Safety NCO, 3d Battalion, 58th Aviation Regiment, USAREUR, DSN 337-6056

# From the field

## It just keeps on going and going . . .

**N**o, this isn't about the "pink bunny" you see marching across your TV screen. "It" is the network of safety people all over the world and across the military services who find a good idea or a better way to do something and share it with us all.

CW5 Stephen Rauch at HQUSAREUR



picked up an e-mail message listing stock numbers and prices for colored reflective belts from SSgt "Safety Joe" Muhlberger, 52FW/SEG (Wing Ground Safety), who had got his information from TSgt Rogowski, the 53FS alternate UGSM, and he passed it on to other ASOs. We're using *Countermeasure* to ensure that ground safety people also get the info.

Stock No.	Color	Price
8465-01-225-4659	Blue	\$8.50
8465-01-225-4661	Lime	8.50
8465-01-163-8835	White	5.90
8465-01-225-4656	Yellow	8.50
8465-01-225-4660	Red	8.50

When CW4 Mark Hutchings at Fort Campbell saw this message, it prompted him to pass on some information about what Fort Campbell has done on reflective equipment. When they compared reflective bands, vests, and belts, they found that vests and belts tend to get obscured by equipment and clothing. So they decided on the ankle band. Leg movement attracts attention to the ankle band, under most conditions it does not become obscured, and it costs less than the vests and belts, especially if purchased in quantities of 100 or more. Many sources are available, so shop around.

If you want to talk to CW4 Hutchings, you may call him at DSN 635-6789.

—thanks to CW5 Mark Barker, Training Division, USASC, for forwarding this information to *Countermeasure*

## Close call in Bosnia

**U**.S. troops in Bosnia face many enemies: the weather, unexploded ordnance and mines, and accidents. Luckily, no one was injured recently when a fire occurred in a dining facility at Comanche Base, Tuzla West.



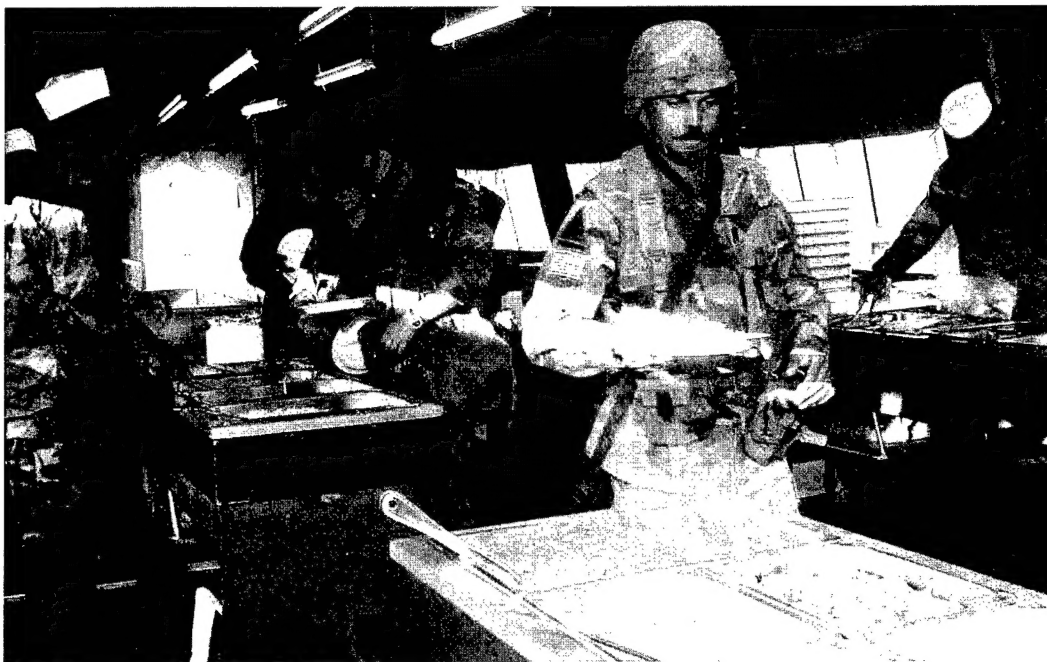
The time was 2000 and an NCO was performing duties as the supervisor/operator of 17 M2 burners located in the dining facility. He and a PFC performed a PMCS (preventive maintenance checks and services) on the M2 burners before placing each one in operation. Once all of the burners were on line, the NCO and PFC continued to check them every 15 minutes to ensure they were functioning normally.

At 2145, a dining facility contractor employee reported the presence of fuel vapor. As the employee walked by a line of four M2 burners, a small quantity of fuel on the floor near one of the burners ignited. The employee fled the scene while the NCO and another dining facility employee began fighting the flames with fire extinguishers. Fortunately, the extinguishers functioned as they should have and they were able to extinguish the fire in less than a minute. About 5 minutes after the fire began, the fire department arrived to find everything under control. No injuries or property damage resulted. The cause of the fuel leak was

determined to be a faulty pre-heater on one of the M2 burners. The pre-heater was replaced, and the pre-heaters on all of the other M2 burners were inspected to ensure they were serviceable.

A potentially costly, even life-threatening, accident was averted because the hazards associated with M2 burner operations were identified and proper control measures instituted. Procedures had been established and were followed to inspect the M2 burners every 15 minutes, and fire extinguishers were readily available in case they were needed. ♦

—thanks to CW3 Marty J. Martin, Safety Officer, 11th Aviation Regiment, DSN 467-4780/542



Food has always been important to the health and welfare of soldiers. These troops in Bosnia will be better equipped to face the cold temperatures after a hot meal.

## Let us hear from you

If you have information you would like to share through *Countermeasure*, or if you would like to write an article for this publication, our e-mail address is [marcumb@rucker-safety.army.mil](mailto:marcumb@rucker-safety.army.mil). Or send it to Commander, U.S. Army Safety Center, ATTN: CSSC-RSG (*Countermeasure*), Bldg 4905 5th Ave, Fort Rucker, AL 36362-5363. The fax numbers are DSN 558-9528 (commercial 334-255-9528). Call us at DSN 558-2688 (334-255-2688). If you don't have time to polish your writing, don't worry about it. Get the facts to us, be sure you give us a way to contact you, and we'll take it from there. If you have a story to tell but don't want your name used, we can handle that too. Remember, something you know could save a soldier's life—don't think "I'll do it tomorrow," that might be too late!

# Family safety

## Moving? There's something you need to know

**M**oving is a way of life for military families—that isn't going to change. But when you move now, you have a right to know about lead-based paint and lead-based paint hazards in homes you buy or rent. This is particularly important to families with small children or women who are or may become pregnant.

More than 1.7 million American children under the age of 6 have unsafe blood-lead levels, making lead poisoning a top environmental health hazard for young children. Most of these children are poisoned by deteriorated lead-based paint and the contaminated soil and dust it generates. Children with too much lead in their bodies can experience lowered IQ, reading and learning disabilities, impaired hearing, and other problems. More than 80 percent of the

U.S. housing built before 1978—some 64 million residences—contains lead paint.

The reason that you need to be concerned about housing built before 1978 is that is the year the sale of lead-based paints for use in residential dwellings was banned.

Effective 6 Sep 96, real estate agents and property owners with more than four residential dwellings (including single-family homes) are required to disclose to buyers and new tenants all known lead-based paint and lead-based paint hazards in a residence. On 6 Dec 96, the requirement was extended to owners of even a single residence.

When you consider renting or purchasing a home that predates 1978, you should ask for—and the owner is required to provide—information on lead-based paint and lead-based paint hazards in the property you are considering. The owner must also provide you a copy of Environmental Protection Agency pamphlet *Protect Your Family from Lead in Your Home*. This pamphlet includes practical, low-cost tips on identifying and controlling lead-based paint hazards. (See box for

### **If you suspect that your house has lead hazards, you can take some immediate steps to reduce your family's risk:**

- If you rent, notify your landlord of peeling or chipping paint.
- Clean up paint chips immediately.
- Clean floors, window frames, window sills, and other surfaces weekly. Use a mop or sponge with warm water and a general all-purpose cleaner or a cleaner made specifically for lead. Remember: *Never mix ammonia and bleach products together since they can form a dangerous gas.*
- Thoroughly rinse sponges and mop heads after cleaning dirty or dusty areas.
- Wash children's hands often, especially before they eat and before nap time and bed time.
- Keep play areas clean. Wash bottles, pacifiers, toys, and stuffed animals regularly.
- Keep children from chewing window sills or other painted surfaces.
- Clean or remove shoes before entering your home to avoid tracking in lead from soil.
- Make sure children eat nutritious, low-fat meals high in iron and calcium, such as spinach and low-fat dairy products. Children with good diets absorb less lead.

an example of the kind of information the pamphlet contains.)

People who renew leases after 6 Sep 96 must also be provided this information. Specific notification and disclosure language must be included in the contract or lease, along with signed statements from all parties verifying the requirements have been met.

Home buyers will have a 10-day opportunity to conduct a lead-based paint inspection or risk assessment at their own expense before a contract is made final.

For a copy of the pamphlet, sample disclosure forms or the rule, call the National Lead Information Clearinghouse at 1-800-LEAD-FYI. The EPA pamphlet and rule are also available through the Internet at <http://www.epa.gov/opptintr.lead>.

—adapted from a release by the Environmental Protection Agency

## Lead in miniblinds

**O**n June 25, the Consumer Product Safety Commission (CPSC) warned the public about a lead hazard to young children from some miniblinds. Miniblinds are venetian blinds with 1-inch slats, made of metal or plastic. The warning applies only to plastic miniblinds that do not have a high-gloss finish and were imported from China, Taiwan, Mexico, or Indonesia. Some of these blinds are not marked with a brand name or country of origin. The miniblinds contain lead that can be rubbed off when the

plastic ages. Children under 6 years old may run their hands over the blinds or suck on them and then swallow the lead. CPSC's advice is to remove lead-containing miniblinds from homes where small children live.

Army policy is to provide safe housing and workplaces for soldiers, their families, and civilians. The U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) Lead Team has developed a fact sheet that provides guidance on how to deal with this new health concern. The guidance recommends that lead-containing miniblinds be removed from places where children under 6 years old or pregnant women may be exposed to them. The highest priority is to remove blinds from Army housing and other facilities where this exposure is currently taking place. The fact sheet is available by calling the Industrial Hygiene Field Services Program, DSN 584-3118 (410-671-3118) or 1-800-222-9698.

Army personnel who think that they have these miniblinds should contact their local Directorate of Public Works (DPW) for more information. Personnel who have bought their own blinds should contact the store where they were bought. Stores are beginning to carry miniblinds made with "lead-free" plastics. They also sell metal miniblinds. Both are slightly more expensive than the lead-containing blinds. Many stores will take lead-containing blinds back and give a refund or credit toward other kinds. ♦

—courtesy U.S. Army Center for Health Promotion and Preventive Medicine newsletter *CHPPM Today*. USACHPPM POC: Ms. Victoria Belfit, DSN 584-2559 (410-671-2559) or 1-800-222-9698

## Lead (Pb) exposure control guide

**T**he CHPPM Lead-Based Paint Team, in a joint effort with the Army Environmental Policy Institute (AEPI), has published a *Mission-Area Guide to Lead-Exposure Control*. This guide is designed to raise the awareness level of Army commanders and other DA personnel to lead exposures from Army activities and offers mission-area-specific lead-exposure control strategies that can be implemented by installations Armywide. The guide also provides information needed to comply with Federal, state, and local laws governing the use of lead and lead compounds on military installations. Copies are available by calling Ms. Victoria Belfit, DSN 584-2559 (410-671-2559) or 1-800-222-9698. ♦

# Home smoke alarms

**D**o you remember the last time you checked the smoke alarms in your home? If you don't make it a regular routine to check your home alarm system, you may think you are protected when in fact you're not.

A good way to remember to replace batteries and check how well your alarms are functioning is to choose a significant date in the year. How many of us forget Christmas and New Year's? Some of us might like to forget our birthdays, but we seldom do. What I'm saying is we don't forget days that are significant to us (don't tell your wife that if you have trouble remembering your wedding anniversary). So why not make it a habit to check your home smoke alarms on one of those significant days?

## Make sure you perform a proper functional check

If you limit your alarm check to the battery and annunciator by pushing the test button, you're not doing enough. This doesn't actually check the smoke sensor's circuitry. To do that, you have to expose the sensor to smoke.

Before you do this step, practice risk management and establish some controls to protect yourself, your family, and even your pets.

- Use earplugs for any humans who

will be exposed to the high-pitched sound when the detector goes off. (This might be a good time for the kids to take the pets outside.)

- Be sure the stepstool or ladder you use to get close to the alarm is sturdy and won't slip on the floor surface.

■ Light a small candle, blow out the flame, and let the smoke rise into the alarm sensor. The alarm should activate within a few seconds. If it doesn't, repeat the procedure to ensure that the smoke reaches the sensor. If the smoke alarm continues to fail, check or replace the battery. If the battery is good, you should replace the smoke alarm with a new one. Once the alarm sounds, you can blow into the sensor to help deactivate the alarm.

- If your house has multiple alarms wired together, listen for alarms in other rooms while you conduct each alarm test.

## Remember how important smoke alarms are to your family's safety

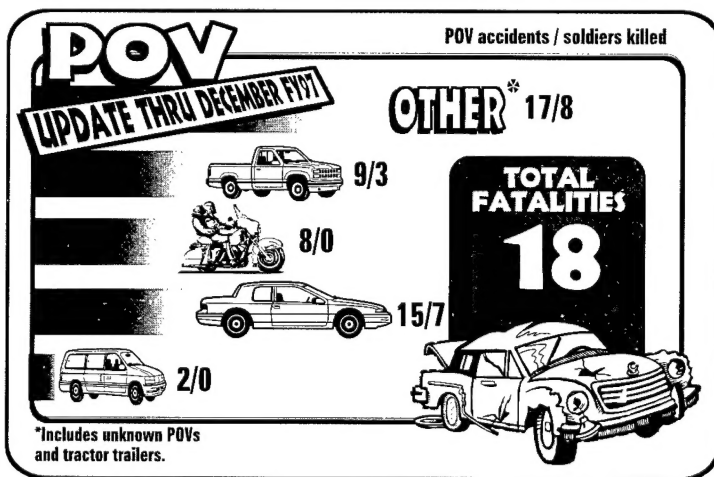
- Replace batteries at least once a year.

■ Check new alarms and those in service on a regular basis.

- Replace faulty alarms as soon as possible.

- Put a reminder to do this in your day planner/timer right now! ♦

—SFC Daniel Denham, ARNG, 19th SFGA, Environmental Health and Safety Coordinator, AMOCO Corporation (303-830-6070)



Report of Army ground accidents; published by the U.S. Army Safety Center, Fort Rucker, AL 36362-5363. Information is for accident prevention purposes only. Specifically prohibited for use for punitive purposes or matters of liability, litigation, or competition. Address questions about content to DSN 558-2688 (334-255-2688). Address questions about distribution to DSN 558-2062 (334-255-2062).

THOMAS J. KONITZER  
Brigadier General, USA  
Commanding